

1M06-MLEM-PM-01
27 June 2005

**Directorate of Metrology
Purchase Description**

**High Capacity Top Loader Balance
Mettler Toledo SG32001 or Equal**

1.0 Scope:

This purchase description specifies a High Capacity Top Loader Balance to be used in the calibration of mass standards. Any item satisfying the salient characteristics listed below will be acceptable.

2.0 General Description:

The items described herein shall be brand name or equal to the Mettler-Toledo SG32001. All requirements listed are essentially those contained in the current Mettler-Toledo data sheets. Bids offering an item which meets or exceeds the requirements set forth in the purchase description are acceptable. Any features or additional capabilities of the brand name product listed in this purchase description which are not essential to meet the stated salient characteristics in this purchase description are not necessary and need not be offered or proposed.

3.0 Salient Characteristics:

The High Capacity Top Loader Balance will incorporate the following characteristics, which are essential to the government.

3.1 Measurement Range:

The High Capacity Top Loader Balance will have a continuous range of 0 to 32 kilograms minimum.

3.2 Resolution:

The High Capacity Top Loader Balance will be readable to 0.1 grams.

3.3 Repeatability:

The repeatability of the instrument shall be ± 0.1 grams or better.

3.4 Linearity:

The linearity of the instrument shall be ± 0.2 grams or better.

3.5 Stabilization Time:

The typical stabilization time shall be less than 5 seconds.

3.6 Power:

The High Capacity Top Loader Balance will be capable of operating on standard 110 V AC 60 Hz. electrical power.

3.7 Environment:

3.7.1 Operating Temperature:

Electrical, electronic and electromechanical items shall be capable of operating in an ambient temperature of 65 to 80 degrees F without loss of required performance.

3.7.2 Operating Humidity:

The equipment shall maintain specified performance in an atmosphere from 20% to 50% relative humidity.

4.0 Safety:

Documentation will be provided to support the means by which electrical safety considerations have been addressed. The safety of all personnel will be assured personnel conductive or nonconductive contact with the outside of the equipment, and during the changing of the fuse with the power to the system and it's components on. This documentation shall consist of a minimum of a citing of a UL or ANSI identified standard or equivalent United States Std that the equipment conforms to.

5.0 Testing:

This item will be inspected and accepted at destination. The item will be checked with test equipment with parameters equal to or better than those required to assure that specified performance parameters are met. Test equipment used shall have first echelon certification directly traceable to the National Institute of Standards Technology (NIST) where required. Tests will be performed to assure that the item meets the requirements of paragraphs 3.1 through 3.7 of this purchase description. Such testing at destination does not relieve the contractor of performing all inspections and quality checks at the point of manufacture as necessary to assure performance as specified herein.

1. Attachments: Data Requirements

Attachment to
PD 1M06-MLEM-PM-01
High Capacity Top Load Balance

MANUALS: A set of operational and maintenance manuals shall be provided. As a minimum, the manuals shall include an explanation of features, performance specifications, operational instructions, theory of operation, calibration procedures, and an illustrated parts breakdown. Wherever possible, use of pictures, diagrams, schematics and mathematical formulas shall be included such that any text material may be better understood. Specifically, the calibration procedure shall include a list of required calibration equipment, by part number, connection diagrams and step-by-step instructions to follow for completing this task. In addition, a system-level manual explaining the system operation and software shall also be provided. Manuals shall be on CD-ROM in Indexed Portable Document Format (iPDF). A validation and verification of the manuals will be required. The manual shall be in accordance with the Air Force Technical Manual Contract Requirements (TMCR) TM86-01K and Contract Data Requirements List (DD Form 1423).

CONTRACT DATA REQUIREMENTS LIST (1 Data Item)						Form Approved OMB No. 0704-0188			
The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Department of Defense, Executive Services and Communications Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please do not return your form to the above organization. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.									
A. CONTRACT LINE ITEM NO.		B. EXHIBIT		C. CATEGORY: TDP _____ TM <input checked="" type="checkbox"/> OTHER _____					
D. SYSTEM/ITEM High Capacity Top Load Balance			E. CONTRACT/PR NO.		F. CONTRACTOR				
1. DATA ITEM NO. A001		2. TITLE OF DATA ITEM Technical Manual Contract Requirements (TCMR)			3. SUBTITLE				
4. AUTHORITY (Data Acquisition Document No.) TM-86-01K(T)			5. CONTRACT REFERENCE PD 1M06-MLEM-PM-01, Atch		6. REQUIRING OFFICE AFMETCAL DET 1/MLEM				
7. DD 250 REQ LT		9. DIST STATEMENT REQUIRED D		10. FREQUENCY See Blk 16		12. DATE OF FIRST SUBMISSION 180 DAC			
8. APP CODE NO		11. AS OF DATE 180 DAC		13. DATE OF SUBSEQUENT SUBMISSION NA		14. DISTRIBUTION			
16. REMARKS BLK 9: The following information shall be included on the manuals: DISTRIBUTION STATEMENT D: DoD and US DoD contractors only. BLK 11: No later than 180 days after contract award one copy of the manual shall accompany each unit. The schedule is cited in the delivery order. Manuals shall be on CD-ROM in Indexed Portable Document Format (iPDF). Ship to addressee #1 listed in BLK 14a. BLK 11: No later than 180 days after contract award two copies of the manual shall be shipped to addressee #2 listed in BLK 14a. The manuals shall be on CD-ROM in Indexed Portable Document Format. If the manual is available electronically, the file or web link may be sent to MLK@afmetcal.af.mil in lieu of the CD-ROM. BLK 14b: The listed number of copies required is the maximum amount for the acquisition. Specific quantities will be identified in each delivery order.				a. ADDRESSEE		b. COPIES			
						Draft		Final	
						Reg		Repro	
1. AFMETCAL RECEIVING Attn: C. Cooperrider 813 Irving-Wick Dr W BLDG 4 DOOR 15 Heath OH 43056-6116				92					
2. AFMETCAL DET 1/MLK 813 Irving-Wick Dr W, Bldg 2 Heath OH 43056-6116				2					
15. TOTAL				0		94			
				0		0			
				G. PREPARED BY <i>Catherine Williams</i>		H. DATE <i>20 Jan 06</i>		I. APPROVED BY <i>[Signature]</i>	

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

Air Force Technical Manual Contract Requirements (TMCR)
for
High Capacity Top Load Balance

ATTACHMENT DD Form 1423 TO CDRL SEQUENCE NUMBER 001 EXHIBIT A

Date: 20050823

Technical Manual/Technical Order requirements contained herein have been cleared for use by OMB No. 0704-0188, 21 July 1986.

SECTION 1. TECHNICAL ORDER (TO) PROGRAM REQUIREMENTS

1. (T) TMCR Tailoring. Air Force TO Acquisition procedures, including procedures for tailoring this document, are found in TO 00-5-3, located on the World Wide Web (WWW) at <http://www.ide.wpafb.af.mil/toprac/to-syste.htm>, under the link to "Digital Technical Orders." Any terms or procedures found in this document may be researched there.
2. (T) TO Program Scope. The offeror shall provide commercial manuals (Table 2) required to support the High Capacity Top Load Balance
3. (T) Commercial Manuals. The proposal will describe the method used to recommend and submit specific manuals to the government for review and approval. **NOTE:** The government will use MIL-HDBK-1221 as a guide for review and acceptance of all recommended commercial manuals.
4. Technical Manual Specifications and Standards (TMSS) Tailoring. (Deleted).
5. Subsequent TO/Data Requirements. Offerors shall propose a process for notifying the government when additional TO or source data requirements are identified subsequent to contract award. This process shall require government review and approval of recommended additional requirements prior to contractual approval.
6. TO Development. (Deleted).
7. TO Numbering. (Deleted).
8. Data Rights. Government rights in data are specified in the Defense Federal Acquisition Regulation Supplement (DFARS), paragraphs 227-7102 through 227-7104, located in the solicitation/contract. Offerors shall propose Unlimited Rights for all source data and TOs prepared specifically for the contract. If some TOs or source data are copyrighted or contain proprietary data or procedures, offerors may propose Limited Rights or Government Purpose License Rights (GPLR) only. Proposed commercial manuals should be provided with at least GPLR or Limited Rights. Copyrights shall be according to DFARS paragraphs 227-7103, 7105 or 7106.
9. Classification, Distribution, Destruction, Disclosure, and Export Control Notices. (Deleted).
10. TO Quality. (Deleted).
11. TO and Source Data Maintenance. (Deleted).
12. (T) TO Delivery. TO file delivery formats shall be according to applicable CDRLs and the tailored TM Delivery Requirements Matrices included in Section 2 of this document.
 - 12.1. SGML-Tagged Files. (Deleted).

12.2. Indexed Adobe™ Portable Document Format (IPDF) Files. Indexing specifications for PDF TO files are contained in the Technical Order Conversion Requirements (TOCR) (<http://www.ide.wpafb.af.mil/toprac/working.htm>).

13. (T) Schedules. Air Force policy requires delivery of verified TOs prior to or concurrently with delivery of operational equipment to the field (AFI 21-303). This policy will determine TO development and delivery schedules throughout the acquisition phase of a program.

SECTION 2. TM TYPE AND DELIVERY REQUIREMENTS

PART A – TM TYPE SELECTION TABLES

TABLE 1
TMSS REQUIREMENTS FOR THE HIGH CAPACITY TOP LOAD BALANCE

Title or Type of Manuals	Specification	Required
1. Inspection TOs	MIL-PRF-5096	
a. Inspection and Maintenance Requirements (-6) Manual		<input type="checkbox"/>
b. Acceptance and Functional Check Flight (FCF) Procedures (-6CF) Manual		<input type="checkbox"/>
c. Acceptance and Functional Check Flight (-6CL) Checklist		<input type="checkbox"/>
d. Workcards		<input type="checkbox"/>
e. Inspection Requirements Cards		<input type="checkbox"/>
f. Flow/Sequence Charts		<input type="checkbox"/>
g. Checklists		
(1) Maintenance/Operations (Non-Aircrew)		<input type="checkbox"/>
(2) Operations (Aircrew)		<input type="checkbox"/>
2. Cargo Aircraft Loading and Offloading TOs	MIL-PRF-5288	
a. Manual		<input type="checkbox"/>
b. Checklists		<input type="checkbox"/>
3. Weight and Balance (Aircraft)	MIL-PRF-5920	
a. Loading Data Manual		<input type="checkbox"/>
b. Sample Basic Weight Checklists		<input type="checkbox"/>
4. Flight Manuals (see notes)	MIL-PRF-7700	
a. Flight Manual		<input type="checkbox"/>
b. Performance Data Manual		<input type="checkbox"/>
5. List of Applicable Publications	MIL-PRF-8031	<input type="checkbox"/>
6. Structural Repair Manuals (for Aircraft)	MIL-PRF-9854	<input type="checkbox"/>

TABLE 1
TMSS REQUIREMENTS FOR THE HIGH CAPACITY TOP LOAD BALANCE

Title or Type of Manuals	Specification	Required
7. Munitions/Weapons Loading Procedures, Non- nuclear and Nuclear	MIL-PRF-9977	
a. Nuclear Weapons Basic Information and Loading Procedures		<input type="checkbox"/>
b. Nuclear Weapons Loading Procedures		<input type="checkbox"/>
c. Non-nuclear Munitions Basic		<input type="checkbox"/>
d. Non-nuclear Loading Procedures		<input type="checkbox"/>
e. Integrated Combat Turnaround Procedures		<input type="checkbox"/>
f. Non-nuclear Munitions Loading Standard Data Packages (SDPs)		<input type="checkbox"/>
g. Loading Procedures Checklists		<input type="checkbox"/>
h. Integrated Loading Procedures Checklists		<input type="checkbox"/>
i. Nuclear Weapons Loading Procedure Checklists		<input type="checkbox"/>
j. Integrated Combat Turnaround Procedures Checklists		<input type="checkbox"/>
k. NATO Stage B Cross-Servicing Checklists		<input type="checkbox"/>
8. Mobile Training Sets (MTS) and Part Task Trainer TOs	MIL-PRF-9994	
a. Single Manual		<input type="checkbox"/>
b. Single Manual w/IPB		<input type="checkbox"/>
c. General/Systems Trainer Manuals		<input type="checkbox"/>
d. General/Systems Trainer Manuals w/IPB		<input type="checkbox"/>
e. Part Task Trainer Manuals		<input type="checkbox"/>
9. Space Operations and Support Documentation TOs	ANSI/AIAA-R024-1993	<input type="checkbox"/>
-- Commercial specification (all space systems & missiles)	MIL-PRF-38311	<input type="checkbox"/>
-- MILSPEC (Intercontinental Ballistic Missiles)		<input type="checkbox"/>
-- MILSPEC (Space Systems)	MIL-PRF-38314	<input type="checkbox"/>
a. Operations Manual		<input type="checkbox"/>
b. Operations Checklists		<input type="checkbox"/>
c. Technical Manuals and Related Checklists		<input type="checkbox"/>
10. Nuclear and Non-nuclear Weapon Delivery and Aircrew Procedures Manuals and Checklists	MIL-PRF-38384	
a. Non-nuclear Weapon Delivery Manual (Strategic Bomber & Tactical Aircraft)		<input type="checkbox"/>
b. Nuclear Bomb Delivery Manual (Strategic Bomber Aircraft)		<input type="checkbox"/>
c. Aircrew Nuclear Weapon Delivery Manual (Strategic Bomber Aircraft)		<input type="checkbox"/>
d. Aircrew Nuclear Weapon Delivery Manual (Tactical Aircraft)		<input type="checkbox"/>
e. Non-nuclear Weapon Delivery Checklist (Strategic Bomber & Tactical Aircraft)		<input type="checkbox"/>

TABLE 1
TMSS REQUIREMENTS FOR THE HIGH CAPACITY TOP LOAD BALANCE

Title or Type of Manuals	Specification	Required
f. Nuclear Bomb Delivery Checklist (Strategic Bomber Aircraft)		<input type="checkbox"/>
g. Aircrew Nuclear Weapon Delivery Checklist (Tactical Aircraft)		<input type="checkbox"/>
h. Non-nuclear Weapon Delivery Source Data Packages		<input type="checkbox"/>
11. Air Refueling Procedures	MIL-PRF-38413	
a. Manual		<input type="checkbox"/>
b. Checklist		<input type="checkbox"/>
12. Work Unit Code Manual	MIL-PRF-38769	<input type="checkbox"/>
13. Calibration Procedures	MIL-PRF-38793	X
14. Time Compliance Technical Orders (TCTOs)	MIL-PRF-38804	<input type="checkbox"/>
15. Aircraft Battle Damage Assessment and Repair TOs	MIL-PRF-87158	<input type="checkbox"/>
16. Illustrated Parts Breakdown	MIL-PRF-38807	X
17. On-Equipment Organizational Maintenance Manual Set (see notes)	MIL-PRF-83495	
a. General Equipment (GE) Manual		<input type="checkbox"/>
b. General System (GS) Manuals		<input type="checkbox"/>
c. Combined GE & GS Manual		<input type="checkbox"/>
d. Job Guide (JG) Manuals		<input type="checkbox"/>
e. Fault Reporting (FR) Manual		<input type="checkbox"/>
f. Fault Isolation (FI) Manual		<input type="checkbox"/>
g. Wiring Data (WD) Manual		<input type="checkbox"/>
h. Schematic Diagram (SD) Manual		<input type="checkbox"/>
18. Operation and Maintenance Instructions in Work Package Format	MIL-DTL-87929	
a. Maintenance Manuals		
(1) Intermediate Maintenance		<input type="checkbox"/>
(2) Depot Maintenance		<input type="checkbox"/>
(3) Combined (I&D) Maintenance		<input type="checkbox"/>
(4) On Condition Maintenance		<input type="checkbox"/>
b. Operation & Maintenance Instruction Manuals		<input type="checkbox"/>
c. Special Manuals		
(1) Aircraft Engine Testing and Trending Procedures		<input type="checkbox"/>
(2) Aircraft Power Package Testing Procedures		<input type="checkbox"/>
(3) Static Firing of Missile Motors		<input type="checkbox"/>
(4) System Peculiar Corrosion Control		<input type="checkbox"/>
(5) Nondestructive Inspection (NDI)		<input type="checkbox"/>

TABLE 1
TMSS REQUIREMENTS FOR THE HIGH CAPACITY TOP LOAD BALANCE

Title or Type of Manuals	Specification	Required
(6) Aircraft Structural Integrity Program (ASIP)		<input type="checkbox"/>
(7) ATE Operator Test Procedures		<input type="checkbox"/>
(8) Special Requirements for Storage and Maintenance Procedures; AUR Munitions/Launchers and Associated Support Equipment, Conventional Components and CMBR Agents		<input type="checkbox"/>
(9) Parachute Packing Procedures		<input type="checkbox"/>
(10) Operators Instructions (Hand-Held Flight Computers)		<input type="checkbox"/>
(11) Installation-Engineering Facility (Ground C-E Equipment)		<input type="checkbox"/>
d. Checklists (IAW MIL-PRF-5096)		<input type="checkbox"/>
e. With Illustrated Parts Breakdown (see notes)		<input type="checkbox"/>
19. Commercial Manuals (Evaluate according to MIL-HDBK-1221)		X
20. Aircraft Cross-servicing Guide	MIL-DTL-22202	<input type="checkbox"/>
21. Interactive Electronic Technical Manuals (Contact specification preparing activity for guidance.)	ASD/AIA S1000D* MIL-PRF-87268 MIL-PRF-87269	<input type="checkbox"/>
* Not usable as is. Contact MSGMMFSGMLSupport@wpafb.af.mil for assistance.		

TABLE 2 (DELETED)

PART B - DELIVERY REQUIREMENTS
FOR
DATA TYPE DELIVERED – COMMERCIAL MANUALS- HIGH CAPACITY TOP LOAD BALANCE

(Replicate form for each TM type required.)

Delivery Format Requirements Codes

Paper (draft or manuscript only. Cannot be used for final delivery)

Mixed paper and digital (G/I)

Digital delivery only:

G. - Standard Generalized Mark-up Language (SGML).

I. - Indexed Portable Document Format (IPDF) File.

EXAMPLE: M(G) / 2 [Paper and SGML / 2 copies]

NOTES:

- Delivery format requirements codes indicate the media/file format to be delivered for each program event.
- TCTO requirements are specified in the contract vehicle approving the TCTO.
- When on-line access (e.g., CITIS) is a contractual requirement, copy quantity will normally be Ø (zero).

DELIVERY SCHEDULE				
Event ⇌ Number of days data required prior to event ⇌ Enter Office Symbol and Address ↓ ↓	Technical Review(s) (Days) ↓	Verification (Days) ↓	Prepublication Review (Days) ↓	Final Distribution (180 Days) ↓
PRODUCTION UNITS AFMETCAL RECEIVING ATTN: C. COOPERRIDER 813 IRVING-WICK DR W, BLDG 4, DOOR 15 HEATH OH 43056-6116				1/ 92
AFMETCAL DET 1/MLK ATTN: C. WILLIAMS 813 IRVING-WICK DR W, BLDG 2 HEATH OH 43056-6116				1 / 2
Total Copies Required:				94

SECTION 3. SPECIFICATION/STANDARD INTERFACE RECORDS (SIRS)
 (DELETED).